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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,177	12/18/2001	James W. Barker JR.	SC-5330	5862

24275 7590 05/08/2003

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EXAMINER

NICHOLSON, ERIC K

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/017,177

Applicant(s)

J. Barker et al.

Examiner

Eric Nicholson

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s)
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim rejected under 35 U.S.C. § 102() as being anticipated by .

Claims 5 and 6 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by U.S. patent 3,859,704 to Nasson. The steel member is attached to the aluminum member via an interference connection using adhesive in grooves shown in fig. 2 and discussed in column 2, lines 15-25 and such joint would inherently be gas-tight in the same manner as that of the present invention given it includes the same structural features

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim rejected under 35 U.S.C. 103(a) as being unpatentable over .  
Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's disclose of prior art on page 1, lines 15-20 in view of U.S. patent 5,803,553 to Wei.

Applicant discloses on page 1, lines 15-20 of the specification that it is known in the related arts to provide a gas-tight joint between a flange/end fitting and a tubular housing using a heat-shrink process whereby a metallic end flange is

heated and assembled onto a tubular housing to which adhesive has already been applied. The prior art of Wei discloses in column 8, lines 6-67 continuing to column 9, lines 1-25 that it is known in the art to assemble members together via a heat-shrink process with adhesive 72 applied to grooves 43,44. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the flange and end fitting of applicant's discloses prior art with grooves such as taught by Wei in order to aid in securing the flange and fitting together by keeping the adhesive in the grooves during the heat-shrink process. As to claims 2-4, Wei discloses the claimed invention except for the particular dimensions of the depth and width of the grooves for the interference fit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the width of the grooves to .250 inch; the depth of the grooves to .005 inch with the interference at .010 inch such that the groove depth is less than the interference fit, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### Conclusion

Applicant's remarks have been considered however are not deemed to be persuasive. Applicant argues that prior art does not disclose or suggest using both adhesive applied to grooves in the tubular housing and heating the flange for assembly to provide an interference fit. The examiner disagrees, the Nasson reference makes it clear in column 1, lines 55-60 that the connection between the rim and spider which normally uses resin adhesive and a mechanical interlock "may be augmented by making the fit between the wheel rim and the wheel spider an interference fit so that the wheel rim must be forced over the wheel spider". Further, in lines 65-68 of column 1 continuing to column 2, lines 1-2 explain that the interference fit can be made by temperature differentials such as a shrink fit.

As to the Wei reference, applicant argues that "while the sealing material may include an adhesive, this reference does not teach attachment thereby". The examiner again disagrees, see column 6, lines 17-18 which state that the "adhesive functions to bond, and thereby further secure, the wheel disc to the wheel rim.

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See

MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Nicholson whose telephone number is (703) 308-0829. The examiner can normally be reached on Tuesdays thru Fridays from 7:30 to 6:00.

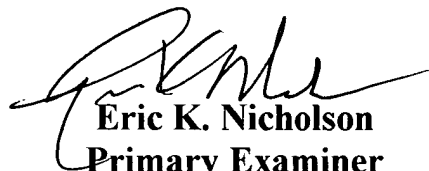
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne, can be reached on (703) 308-1159. The fax phone number for Technology Center 3600 is (703) 872-9326 for "before final" papers and (703) 872-9325 for "after final" papers.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center receptionist whose telephone number is (703) 308-1113.

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5/6/03  
W@H



**Eric K. Nicholson**  
**Primary Examiner**  
**Technology Center 3600**